What is claimed is:

1. A method for implementation in an index server in a peer-to-peer system, comprising:

receiving, from a first peer, a request for a data file, the request including an ID of the first peer;

identifying a second peer having the data file from an index of peers;

processing payment for the data file; and

sending, to the first peer, an address of the second peer and a first encryption dataset to decrypt the data file.

2. The method of claim 1, wherein the identifying identifies a second peer geographically closest to the first peer.

3. The method of claim 1, wherein the identifying identifies a second peer having a lowest number of pings in relation to the first peer.

4. The method of claim 1, wherein the data file is a music file.

5. The method of claim 1, further comprising:

selecting an advertisement to send to the first peer; and

sending, to the first peer, an address of a peer having the advertisement.

6. The method of claim 5, wherein the selecting an advertisement is based on demographic data associated with the first peer.

7. The method of claim 5, wherein the processing payment processes a reduced payment for the data file upon sending, to the first peer, the address of a peer having the advertisement.

8. The method of claim 1, further comprising verifying a password from the first peer before processing payment and sending, to the first peer, the address of the second peer.

9. The method of claim 1, wherein the processing does not occur until receipt, from the first peer, of a confirmation signal confirming receipt of the data file.

10. The method of claim 1, further comprising:

upon receipt, from the first peer, of a signal indicating inability to retrieve the data file

identifying another peer having the data file from an index of peers;

sending, to the first peer, an address of the another peer and another encryption dataset to decrypt the data file.

11. The method of claim 1, further comprising updating the index of peers to indicate that the first peer includes a copy of the data file.

12. The method of claim 1, further comprising sending a second encryption dataset to the second peer.

13. The method of claim 12, wherein the second encryption dataset includes an encrypted public transaction key and an encrypted public key, the public key capable to encrypt data so that the encrypted data is decipherable only by the first peer.

14. The method of claim 1, wherein the first encryption dataset includes an encrypted private transaction key.

15. The method of claim 14, wherein the encrypted private transaction key is decipherable only by the first peer.

16. A machine-readable medium, for use in an index server in a peer-to-peer system, the server having stored thereon instructions to:

receive, from a first peer, a request for a data file, the request including an ID of the first peer;

identify a second peer having the data file from an index of peers;

process payment for the data file based on the ID of the first peer; and

send, to the first peer, an address of the second peer and a first encryption dataset to decrypt the data file.

17. The machine-readable medium of claim 16, wherein the instruction to identifying identifies a second peer geographically closest to the first peer.

18. The machine-readable medium of claim 16, wherein the instruction to identify identifies a second peer having a lowest number of pings in relation to the first peer.

19. The machine-readable medium of claim 16, wherein the data file is a music file.

20. The machine-readable medium of claim 16, further comprising instructions to:

select an advertisement to send to the first peer; and

send, to the first peer, an address of a peer having the advertisement.

21. The machine-readable medium of claim 20, wherein the instruction to select an advertisement is based on demographic data associated with the first peer.

22. The machine-readable medium of claim 20, wherein the instruction to process payment processes a reduced payment for the data file upon sending, to the first peer, the address of a peer having the advertisement.

23. The machine-readable medium of claim 16, further comprising an instruction to verify a password from the first peer before processing payment and sending, to the first peer, the address of the second peer.

24. The machine-readable medium of claim 16, wherein the instruction to process does not occur until receipt, from the first peer, of a confirmation signal confirming receipt of the data file.

25. The machine-readable medium of claim 16, further comprising instructions to,

upon receipt, from the first peer, of a signal indicating inability to retrieve the data file,

identify another peer having the data file from the index of peers;

send, to the first peer, an address of the another peer and another encryption dataset to decrypt the data file.

26. The machine-readable medium of claim 16, further comprising an instruction to update the index of peers to indicate that the first peer includes a copy of the data file.

27. The machine-readable medium of claim 16, further comprising an instruction to send a second encryption dataset to the second peer.

28. The machine-readable medium of claim 27, wherein the second encryption dataset includes an encrypted public transaction key and an encrypted public key, the

public key capable to encrypt data so that the encrypted data is decipherable only by the first peer.

29. The machine-readable medium of claim 16, wherein the first encryption dataset includes an encrypted private transaction key.

30. The machine-readable medium of claim 29, wherein the encrypted private transaction key is decipherable only by the first peer.

31. An index server for use in a peer-to-peer system, comprising:

means for receiving, from a first peer, a request for a data file, the request including an ID of the first peer;

means for identifying a second peer having the data file from an index of peers;

means for processing payment for the data file based on the ID of the first peer; and

means for sending, to the first peer, an address of the second peer and decryption information to decrypt the data file.

32. An index server for use in a peer-to-peer system, comprising:

a data file index capable to store listings of data files, peers storing the data files, and encryption data needed to decrypt the data files;

a distribution engine, communicatively coupled to the index, capable to

receive, from a first peer, a request for a data file, the request including an ID of the first peer;

identify a second peer having the data file from the index;

process payment for the data file based on the ID of the first peer; and

send, to the first peer, an address of the second peer and a first encryption dataset to decrypt the data file.

33. The server of claim 32, wherein the distribution engine is further capable to identify a second peer that is geographically closest to the first peer.

34. The server of claim 32, wherein distribution engine is further capable to identify a second peer having a lowest number of pings in relation to the first peer.

35. The server of claim 32, wherein the data file is a music file.

36. The server of claim 32, wherein the distribution engine is further capable to:

select an advertisement to send to the first peer; and

send, to the first peer, an address of a peer having the advertisement.

37. The server of claim 36, wherein the distribution engine is further capable to select an advertisement based on demographic data associated with the first peer.

38. The server of claim 36, wherein the distribution engine is further capable to process a reduced payment for the data file upon sending, to the first peer, the address of a peer having the advertisement.

39. The server of claim 32, wherein the distribution engine is further capable to verify a password from the first peer before processing payment and sending, to the first peer, the address of the second peer.

40. The server of claim 32, wherein the distribution engine is further capable to delay processing until receipt, from the first peer, of a confirmation signal confirming receipt of the data file.

41. The server of claim 32, wherein the distribution engine is further capable to,

upon receipt, from the first peer, of a signal indicating inability to retrieve the data file,

identify another peer having the data file from the index; and

send, to the first peer, an address of the another peer and another encryption dataset to decrypt the data file.

42. The server of claim 32, wherein the distribution engine is further capable to update the index to indicate that the first peer includes a copy of the data file.

43. The server of claim 32, wherein the distribution engine is further capable to update the index to indicate that the first peer includes a copy of the data file.

44. The server of claim 32, wherein the distribution engine is further capable to send a second encryption dataset to the second peer.

45. The server of claim 44, wherein the second encryption dataset includes an encrypted public transaction key and an encrypted public key, the public key capable to encrypt data so that the encrypted data is decipherable only by the first peer.

46. The server of claim 32, wherein the first encryption dataset includes an encrypted private transaction key.

47. The server of claim 36, wherein the encrypted private transaction key is decipherable only by the first peer.

48. A method for implementation in a first peer in a peer-to-peer system, comprising:

sending, to a server, a purchase request for a data file, the purchase request including a peer identifier;

receiving, from the server, an address of a second peer having the data file and a first encryption dataset for decrypting the data file;

sending, to the second peer, a download request for the data file;

receiving, from the second peer, the data file;

decrypting the data file with the first encryption dataset; and

outputting the data file.

49. The method of claim 48, wherein the data file is a music file.

50. The method of claim 48, further comprising:

receiving, from the server, an address of a peer having an advertisement;

downloading, from the peer having the advertisement, the advertisement; and

playing the advertisement.

51. The method of claim 48, further comprising sending a password to the server before receiving the address of a second peer having the data file and the first encryption dataset for decrypting the data file.

52. The method of claim 48, further comprising sending, to the server, a confirmation signal confirming receipt of the data file.

53. The method of claim 48, further comprising sending, to the server, a signal indicating inability to download the data file when unable to download the data file.

54. The method of claim 53, further comprising receiving an address of a third peer having the data file after sending the signal indicating inability to download the data file.

55. The method of claim 48, wherein the first encryption dataset includes an encrypted private transaction key.

56. The method of claim 55, wherein the encrypted private transaction key is decipherable only by the first peer.

57. The method of claim 55, decrypting the data file using the private transaction key and a private key only known to the first peer.

58. The method of claim 48, further comprising:

storing an encrypted copy of the data file; and

notifying the server that the data file is stored.

59. A machine-readable medium, for use in a peer in a peer-to-peer system, the peer having stored thereon instructions to:

send, to a server, a purchase request for a data file, the purchase request including a peer identifier;

receive, from the server, an address of a second peer having the data file and a first encryption dataset for decrypting the data file;

send, to the second peer, a download request for the data file;

receive, from the second peer, the data file;

decrypt the data file with the first encryption dataset; and

output the data file.

60. The machine-readable medium of claim 59, wherein the data file is a music file.

61. The machine-readable medium of claim 59, further comprising instructions to:
receive, from the server, an address of a peer having an advertisement;
download, from the peer having the advertisement, the advertisement; and
play the advertisement.

62. The machine-readable medium of claim 59, further comprising an instruction to send a password to the server before receiving the address of a second peer having the data file and the first encryption dataset for decrypting the data file.

63. The machine-readable medium of claim 59, further comprising an instruction to send, to the server, a confirmation signal confirming receipt of the data file.

64. The machine-readable medium of claim 59, further comprising an instruction to send, to the server, a signal indicating inability to download the data file when unable to download the data file.

65. The machine-readable medium of claim 64, further comprising an instruction to receive an address of a third peer having the data file after sending the signal indicating inability to download the data file.

66. The machine-readable medium of claim 59, wherein the first encryption dataset includes an encrypted private transaction key.

67. The machine-readable medium of claim 66, wherein the encrypted private transaction key is decipherable only by the first peer.

68. The machine-readable medium of claim 66, wherein the instruction to decrypt the data file further uses a private key known only to the first peer.

69. The machine-readable medium of claim 59, further comprising:

storing an encrypted copy of the data file; and

notifying the server that the data file is stored.

70. A peer in a peer-to-peer system, comprising:

a peer identification; and

an engine capable to

send, to a server, a purchase request for a data file, the purchase request including a peer identifier;

receive, from the server, an address of a second peer having the data file and a first encryption dataset for decrypting the data file;

send, to the second peer, a download request for the data file;

receive, from the second peer, the data file;

decrypt the data file with the first encryption dataset; and

output the data file.

71. The peer of claim 70, wherein the data file is a music file.

72. The peer of claim 70, wherein the engine is further capable to:

receive, from the server, an address of a peer having an advertisement;

download, from the peer having the advertisement, the advertisement; and

play the advertisement.

73. The peer of claim 70, wherein the engine is further capable to send a password to the server before receiving the address of a second peer having the data file and the first encryption dataset for decrypting the data file.

74. The peer of claim 70, wherein the engine is further capable to send, to the server, a confirmation signal confirming receipt of the data file.

75. The peer of claim 70, wherein the engine is further capable to send, to the server, a signal indicating inability to download the data file when unable to download the data file.

76. The peer of claim 75, wherein the engine is further capable to receive an address of a third peer having the data file after sending the signal indicating inability to download the data file.

77. The peer of claim 70, wherein the first encryption dataset includes an encrypted private transaction key.

78. The peer of claim 77, wherein the encrypted private transaction key is decipherable only by the first peer.

79. The peer of claim 77, wherein the engine is further capable to decrypt the data file using the private transaction key and a private key known only to the first peer.

80. The peer of claim 70, further comprising:

storing an encrypted copy of the data file; and

notifying the server that the data file is stored.

81. A peer for use in a peer-to-peer system, the peer comprising:

means for sending, to a server, a purchase request for a data file, the purchase request including a peer identifier;

means for receiving, from the server, an address of a second peer having the data file and a first encryption dataset for decrypting the data file;

means for sending, to the second peer, a download request for the data file;

means for receiving, from the second peer, the data file;

means for decrypting the data file with the first encryption dataset; and

means for outputting the data file.